



IN THE UNITED STATES  
PATENT AND TRADEMARK OFFICE

Inventor(s): Eduard Sackinger  
Case: Sackinger 8  
Serial No.: 09/498,559 Group Art Unit: 2816  
Filed: February 4, 2000  
Examiner: D. Le  
Title: Active Inductor

THE COMMISSIONER FOR PATENTS  
P.O. BOX 1450  
ALEXANDRIA, VA 22313-1450

SIR:

Enclosed is an Appellant's Brief Under 37 C.F.R. 1.193 Before the Board of Patent Appeals and Interferences in the above-identified appeal.

Please charge the amount of \$330.00, covering payment of the fee for the Appeal Brief, to **Lucent Technologies Inc. Deposit Account No. 12-2325**. In the event of any non-payment or improper payment of a required fee, the Commissioner is authorized to charge Deposit Account No. 12-2325 as required to correct the error.

Respectfully submitted,

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Date: 6/24/04  
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6/24/04  
Date

Sharon Lobosco  
SHARON LOBOSCO



Serial No. 08/866,754

**IN THE UNITED STATES  
PATENT AND TRADEMARK OFFICE**

**Patent Application**

**Inventor(s):** Eduard Sackinger

**Case:** 8

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THE COMMISSIONER OF PATENTS AND TRADEMARKS  
WASHINGTON, D. C. 20231

SIR:

**Appellant's Reply Brief Under 37 C.F.R. 1.193**

This is an appeal to the Board of Patent Appeals and Interferences from the Final Rejection dated June 30, 2003. Applicants are submitting this reply brief in triplicate.

A Notice of Appeal was timely filed.

This reply brief is in response to the Examiner's Answer dated June 3, 2004

**Related Appeals and Interferences**

The Examiner's Answer states that appellant's brief does not contain a statement identifying the related appeals and interferences which will directly affect or be directly affected by or have a bearing on the decision in the pending appeal.

The Examiner's statement is incorrect.

On page 1 of Appellant's Brief there is a statement under the heading entitled "Related Appeals and Interferences" that there are no related appeals or interferences. Appellant attaches hereto a copy of page 1 of the Appellant's Brief to support his position.

Furthermore, appellant repeats herein for the record that there are no related appeals or interferences.

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### Arguments

The following sections correspond to similarly lettered sections of section 11, response to argument section of the Examiners answer.

a) The Examiner's Answer states that applicant's arguments are not persuasive because there is no limitation in the rejected claims that requires the MOS transistor to be biased in the saturation mode.

This statement is quite incorrect.

Each of applicant's independent claims does indeed contain a limitation that requires the MOS transistor to be biased in the saturation mode. However, that limitation is not stated in the manner apparently expected by the Examiner, e.g., an express statement that the MOS transistor is biased in the saturation mode. Instead, the independent claims contain a limitation stated in functional form that absolutely requires that the MOS transistor be biased in the saturation mode.

For example, claim 1 recites "said circuit being adapted so that when said circuit is operating said circuit behaves as an active inductor between said source terminal and an other terminal of said active inductor on said integrated circuit". Similarly, claim 14 recites "said MOS transistor is adapted to operate as said active inductor". Likewise, claim 16 recites "a metal oxide semiconductor (MOS) transistor adapted to operate as an active inductor". Such a limitation requires that the MOS transistor be biased in the saturation mode. If the transistor was not biased in the saturation mode, it could not act as an active inductor. However, when biased in the saturation mode, the transistor can act as an active inductor. That is simple transistor physics.

Thus, each of applicant's independent claims indeed contains a limitation that requires the MOS transistor be biased in the saturation mode.

b) The Examiner states that although Ko et al. does not clearly disclose the functions of resistors R2, R4, R6, and R8, one of ordinary skill in the art will readily recognize that their function is to reduce the rush or surge currents when the supply voltage is switched on or off. Thus, their function is a protection function. The Examiner makes this statement without any support therefore, and without taking judicial notice. Furthermore, this statement is clearly wrong, since, as applicant previously indicated, Ko et al. clearly states, at column 3, line 42 through column 4, line 12, that the purpose of the resistors is to bias the active element of the circuit.

Nevertheless, for argument's sake, let's assume that the Examiner is correct in his point that the purpose of resistors R2, R4, R6, and R8 is for a protection function. Let's

further assume, for argument's sake, that the Examiner is correct in his point that the transistor of Vargha requires protection, notwithstanding the fact that Vargha believes that the circuit disclosed therein works just fine without protection, and thus intimates that there is no need for protection. So let's look at what one of ordinary skill in the art would do given these assumptions, keeping in mind that according to the Examiner, the motivation to combine is to have the circuit of Vargha, protected from rush currents by the additional resistors.

Note that the circuit of Vargha acts as a switch, which is its intended purpose. Therefore, implicit in the Examiner's assumption of motivation to combine is that the one of ordinary skill in the art wants to make a Vargha switch, but have protection for its transistor from rush currents.

Thus, following the Examiner's assumptions and logic, one of ordinary skill in the art initially says to himself, based on a first glance analysis, "Ok, I can protect the transistor of my Vargha switch with resistors of Ko et al." However, on closer examination, the one of ordinary skill in the art realizes that the resulting circuit does not act as a switch, which was the intended purpose of his modified version of Vargha, as noted above. In other words, the resulting combination is completely unsatisfactory for its intended purpose, namely, the purpose of being an improved switch.

The M.P.E.P. clearly states in 2143.01 that if the proposed modification would render the prior art invention being modified unsatisfactory for its intended purpose, then there is no suggestion or motivation to make the proposed modification. The M.P.E.P. further states that if the proposed modification or combination of the prior art would change the principle of operation of the prior art invention being modified, then the teachings of the references are not sufficient to render the claims prima facie obvious.

Clearly then, in the instant application, the result of the proposed combination proves that there is no motivation to modify Vargha using the resistors of Ko et al. as suggested by the Examiner. This is because, first, the resulting combination would no longer operate as a switch, the intended purpose of the Vargha reference, which is being modified. Second, the principle of operation of the Vargha reference is changed, because the mode in which the transistor is biased in the unmodified Vargha reference is changed as a result of the proposed modification.

Thus, the Examiner's suggestion to the contrary notwithstanding, there is no motivation for one of ordinary skill in the art to combine Vargha with Ko et al.

As an additional point, a question that should be asked is, why does the Examiner need Ko et al. at all? Why didn't the Examiner simply argue that the use of resistors to reduce rush currents is well known, and therefore one of ordinary skill in the art would

insert resistors into the circuit of Vargha to protect it, thereby obtaining applicant's invention?

It appears the reason is because Ko et al. discloses an active inductor, and it is more seductive to combine two references where one of them is clearly in the same field as is the invention that is sought to be proven to be obvious. Use of such a reference in a combination tends to make the combination look better motivated, and it is probably believed by the Examiner that doing so will aid in having the obviousness rejection upheld. However, in this case, the use of Ko et al. is really no more than a bit of disinformation and obfuscation, because Ko et al. is not cited for any purpose related to active inductors. In fact, it is not Ko et al., the active inductor reference that is being modified. Nor is any use being made of the fact that Ko et al. discloses an active inductor. Therefore, one should therefore not be misled by the citation of Ko et al.

Furthermore, the use of Ko et al. leads one to the proposition that applicant's claims have been used as an instruction manual for finding separate prior art references, each of which is purported to disclose one element, in isolation, of applicant's claimed invention. However, only applicant has taught the combination of features now being claimed, and only applicant has recognized their advantages. Consequently, applicant submits that the skilled artisan, without having the benefit of first reading applicant's disclosure, would not have been motivated to combine the references as suggested by the Examiner.

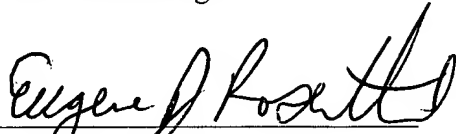
Clearly then, the Examiner's underlying assumptions and his conclusion are erroneous.

**Conclusion**

In view of the foregoing, it is maintained that the Examiner is in error. It is, accordingly, respectfully requested that the rejection of claims 1-19 be reversed and the application passed to issue.

Respectfully,

Eduard Sackinger

By 

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732-949-1857

Lucent Technologies Inc.

Date: 6/24/04